

Applic. No.: 09/939,330

Amdt. Dated July 25, 2005

Reply to Office action of May 23, 2005

REMARKS/ARGUMENTS

Reconsideration of the application is requested.

Claims 1-9 remain in the application.

In the section entitled "Claim Rejections - 35 USC § 103" on pages 2-3 of the above-mentioned Office action, claims 1-9 have been rejected as being unpatentable over Vaartstra (US 6,159,855) in view of Ahmed (US 4,468,283) under 35 U.S.C. § 103(a).

As will be explained below, it is believed that the claims were patentable over the cited art in their original form and the claims have, therefore, not been amended to overcome the references.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, inter alia:

configuring, in the connecting line, a valve for controlling gas flow, the valve having an inlet and an outlet, the second gas outlet opening being directly connected to the inlet of the valve and the outlet of the valve being directly connected to the one of the inlet openings located upstream of the distributor plate.

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In the section "Response to Arguments" on page 2 of the Office action, the Examiner has referred to column 6, lines 1-5 of Ahmed, which reads "... the exhaust stream from the integrated growth process can be discharged either at an appropriate point within the recycle line as shown in Fig. 1 at 23, or through an independent outlet within the growth chamber."

Apparently, the Examiner has combined the above-mentioned embodiment of Ahmed with the technical teaching of Vaartstra and believed that a combination thereof reaches the invention of the instant application.

Applicants disagree. Claim 1 of the instant application recites that a valve (28), as shown in Fig. 2 of the instant application, is arranged in the connecting line (27). It is noted that the discharge line 20 as shown in Fig. 1 of Ahmed does not contain a valve.

The Examiner apparently believes that, when combining Ahmed with Vaartstra, a person skilled in the art would take the valve 39 as shown in the only figure of Vaartstra and insert this valve 39 into the discharge line 20 of Fig. 1 of Ahmed. However, Applicants believe that a person skilled in the art would not do so because this would run counter to the teaching and aim of Ahmed. In Ahmed, it is taught that it is advantageous to achieve a high flow velocity of the reaction

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gases flowing through the discharge tube 20 back to the growth chamber 5 along the surfaces of substrates 7-15. It is shown in Fig. 3 of Ahmed that a higher growth rate can be reached when the velocity is increased from a value V_1 to a value V_2 . Therefore, it is important that the reaction gases supplied by the nozzle 18 are injected with a high velocity into the diffusion tube 19 in order that it transports the reaction gases with a correspondingly high velocity into the discharge line 20. Such reaction gases may then be transported through the discharge line 20 to the reaction chamber 5 with a correspondingly high velocity.

When a high streaming velocity of the reaction gases is so important, why should a person skilled in the art insert a valve into the discharge line 20? Such a valve would throttle the reaction gases and cut-down their streaming velocity in a significant manner. By cutting down the streaming velocity of the reaction gases, the growth conditions would be substantially deteriorated according to the teaching of Ahmed.

In conclusion, Applicants believe that a person skilled in that art would not place a valve into the discharge line 20 of Ahmed.

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It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claim 1. Claim 1 is, therefore, believed to be patentable over the art and since all of the dependent claims are ultimately dependent on claim 1, they are believed to be patentable as well.

In view of the foregoing, reconsideration and allowance of claims 1-9 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate a telephone call so that, if possible, patentable language can be worked out.

If an extension of time for this paper is required, petition for extension is herewith made. Please charge any fees which might be due with respect to 37 CFR Sections 1.16 and 1.17 to

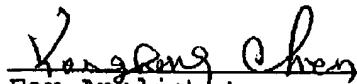
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the Deposit Account of Lerner and Greenberg, P.A., No. 12-
1099.

Respectfully submitted,


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